

*EUPATORIUM MOHRII*, A NEW RECORD  
FOR THE DOMINICAN REPUBLIC, INCLUDING  
*E. QUINQUEFLORUM*, SYN. NOV.  
(ASTERACEAE)

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The distribution of *Eupatorium quinqueflorum* Urb. and Ekm. is confined to the Dominican Republic and thus is removed from the Arcto-Tertiary pattern of distribution (Li, 1952) described for the genus *Eupatorium* sens. str. (King and Robinson, 1970). Because of this outlying distribution the species became of interest. As far as known only three collections of *E. quinqueflorum* have been made and these were by Ekman in 1929 and 1930:

DOMINICAN REPUBLIC: SANTO DOMINGO: Llano Costero, Sabana Guabatico, at Laguna los Derramaderos, "generally in the capillary water belt (= the *Rhexia* belt)," *Ekman H 13318* (LECTOTYPE and SYNTYPE: S; ISOTYPE: NY); Llano Costero, Sabana del Guabatico, *Ekman H 11047* (S); DE SAMANA': Cordillera Central, Sabana de la Mar, El Valle, "in savanna," *Ekman H 15650* (S, US).

Searches for *E. quinqueflorum* by the author in April, 1977 in the vicinity of El Valle and further searches by Thomas A. Zanoni (pers. com., 1981, taxonomist at Jardin Botanico Nacional Dr. Rafael M. Moscoso in Santo Domingo, Dominican Republic) at Sabana de Guabatico were unsuccessful. Laguna Derramaderos is a seasonally fluctuating lake underlain with a hardpan of caliche that prohibits filtration of water to lower levels of the soil. Cultivation there, according to Zanoni (pers. com., 1981), began with planting of rice 40 to 50 years ago. In 1965, sugar cane was planted in the surrounding savanna area called "Sabana de Guabatico" and, at about the same time, rice culture in the lake was eliminated. Currently, plowing for sugar cane and planting is to the margin of the lake at the time of plowing. For this reason little native vegetation remains around the lake.

The second site for Ekman's collection of *E. quinqueflorum*, the El Valle and Sabana de la Mar area, is also under cultivation. In the higher sites coffee or cacao are planted below tall trees and lower wet areas are grazed, planted with rice, or abandoned according to Zanoni (pers. com., 1981). The history of land use in this area is not known to the author.

The type specimen and other specimens of *E. quinqueflorum* collected by Ekman were examined and found to be morphologically indistinguishable from the type of *E. mohrii* Greene of the southeastern U.S. (see Table 1

Table 1. Comparison of Ekman's specimens of *E. quinqueflorum* (including the type) and the type specimen of *E. mohrii* Greene.

	E. QUINQUEFLORUM	E. MOHRII
LEAVES (MIDSTEM)	Linear-lanceolate to sublinear, tips acuminate, a few large teeth, nearly lobed, 2–5 cm long, 2–5 mm wide or less	Shape, margins and tips same as <i>quinqueflorum</i> , 2.6–3 cm long, 4–6 mm wide
STEMS	20–55 cm tall	incomplete specimen
CAPITULA LENGTH (INC. PAPPUS)	7 mm	7 mm
PHYLLARIES	In 2 series, inner 4.3 mm long, 0.7–0.8 mm wide, linear with obtuse tips	In 2 series, inner 4.5–5.2 mm long, 0.8 mm wide, linear with obtuse tips
COROLLA LENGTH	3.7 mm	3.8 mm
ANTHER LENGTH	1.6 mm	1.7 mm
STYLE LENGTH	4.5 mm	4.1 mm
PAPPUS LENGTH	4.8–5 mm*	5.4 mm
ACHENE LENGTH	2.5 mm	2.6 mm

\* pappus not straight

and Figure 1 for comparison). For this reason the oldest available name is accepted.

All of Ekman's specimens of *E. quinqueflorum*, the *E. mohrii* type and plants of *E. mohrii* examined throughout the southeastern U.S. by Sullivan (1976) lack pollen in anthers of preanthetic flowers. Failure to produce pollen is characteristic of agamospermous polyploids of *Eupatorium*, whereas diploids form pollen and reproduce sexually (Sullivan, 1976). The agamospermous triploid, *E. mohrii* ( $3n=30$ , Sullivan, 1972), is thought perhaps to be of hybrid origin. Plants of *E. mohrii* resemble most closely those of *E. recurvans*, a diploid sexual species ( $n=10$ , Sullivan, 1976), which occurs in the southeastern U.S. They and plants of *E. quinqueflorum* examined during this study, share a character uniquely different from the other 18 diploid *Eupatorium* species in North America, that of having short swollen rhizomes.

The manner in which *E. mohrii* was transported to the Dominican Republic and thence was collected and described as new remains a matter of speculation. However, the evidence suggests that *E. mohrii* was only a short-lived waif in the Dominican Republic.



Fig. 1. A. Type specimen of *E. quinqueflorum* Urb. and Ekm. (Ekman H 13318, S). B. Type specimen of *E. mohrii* Greene (C. Mohr s.n. 8 Sep, 1879, Mobile, Ala.).

- EUPATORIUM MOHRII Greene, Contr. U.S. Natl. Herb. 6: 762, tab. 11. 1901.  
*Uncasia mohrii* (Greene) Greene, Leaff. Bot. Observ. Crit. 1: 13. 1903.  
*Eupatorium quinqueflorum* Urb. & Ekm., Ark. Bot. 23A (11): 57. 1931, syn. nov.

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